
U.S. Department of the Interior • U.S. Geological Survey

MINERAL INDUSTRY SURVEYS

Gordon P. Eaton, Director

Reston, VA 20192

For information, contact:

Daniel Edelstein, Commodity Specialist

Telephone: (703) 648-4978, Fax: (703) 648-7757

E-mail: dedelste@usgs.gov

Stephen Frauenheim (Data), (703) 648-7977

MINES-DATA: (703) 648-7799

MINES FaxBack: (703) 648-4999

Internet: <http://minerals.er.usgs.gov/minerals>

COPPER IN JANUARY 1997

Mine production in January declined by about 4% from the record-high level set in December, while primary smelter and refinery production were essentially unchanged. Consumption of refined copper rebounded by about 19% from December's low level. Consumption had declined in December owing to a combination of holiday, weather-related, and maintenance shut-downs at several large rod mills.

Domestic inventories of refined copper rose by about 6,000 metric tons owing to the continued influx of material into U.S. London Metal Exchange (LME) warehouses. While copper prices on Comex and the LME had been, on average, nearly equal in December, a large LME premium over Comex developed in January, encouraging the shift in inventories from Comex to LME warehouses. The LME premium averaged almost 5 cents per pound during the last week of January. This market "aberration" lasted through the first week of February, before reversing. By the second week of February, LME and Comex spot contracts were again trading at equal values. The high LME prices in January resulted in global LME inventories rising from 121,000 tons at the end of December to 191,000 tons at the end of January. However, LME inventories were still down sharply from the January 1996 level of 355,000 tons.

According to preliminary 1996 annual data compiled by the International Copper Study Group, world mine production of copper rose by 660,000 tons (7%), and primary refined production by 980,000 tons (10%). However, owing to a 400,000-ton decline in secondary refined production, total refined production increased by only 580,000 tons (5%). The decline in world secondary refined copper parallels that in the

United States, where refined production from scrap fell by about 7%. This trend was largely attributed to tighter global supplies of scrap in response to lower copper prices. Record high copper prices in 1995 had encouraged a record high production from scrap. Both copper prices and secondary refined production in 1996 were at the same levels as in 1994, reflecting the price sensitivity of secondary recovery.

Kennecott Utah Copper Corp. continued to experience problems with its new smelter. While Kennecott had previously announced its expectation of reaching full capacity during the first quarter of 1997, difficulties with the anode furnace and casting wheel continue to plague operations. Plans currently call for a 6-week shut down of the smelter in April, during which time the smelting furnace will be rebricked, and modifications made to the anode furnace and casting wheel. Start-up problems with the Kennecott smelter, first commissioned in 1995, have reportedly cost the parent company, RTZ - CRA Group., about \$150 million.¹

Note

An estimated 76,000 tons of copper anode for electrolytic refining, imported from Canada in 1996, was misclassified in U.S. import statistics as refined copper. Corrected trade data will be published in the February Copper Mineral Industry Surveys.

¹Platt's Metals Week. Kennecott Utah Copper Smelter Causes Loss for RTZ. V. 68, No. 9, Mar. 3, 1997, p. 2.

TABLE 1
SALIENT STATISTICS OF THE COPPER INDUSTRY IN THE UNITED STATES 1/

(Metric tons, unless noted)

	Source table 2/	1996 p/		1997
		December	Year total	January
Production:				
Primary:				
Mine, recoverable	(2)	165,000 r/	1,910,000	158,000
Smelter 3/	(3)	115,000 r/	1,290,000 r/	115,000
Refinery:				
Electrolytic:				
Domestic	(4)	113,000	1,290,000	116,000
Foreign	(4)	8,240	146,000	8,240
Electrowon	(4)	49,700	574,000	47,900
Total	(4)	171,000	2,010,000	172,000
Secondary recoverable copper:				
Refineries	(5)	26,300	327,000	33,500
Ingot makers 4/	(5)	10,300	124,000	10,300
Brass and wire-rod mills	(5)	58,000 r/	719,000 r/	64,100
Foundries, etc.	(5)	5,200	62,400	5,200
Consumption:				
Total apparent	(8)	220,000	2,900,000	NA
Refined (reported)	(7)	201,000 r/	2,630,000	239,000
Purchased copper-base scrap	(9)	134,000 r/	1,650,000	143,000
Stocks at end of period:				
Total refined	(11)	145,000 r/	XX	151,000
Blister, etc.	(11)	173,000	XX	169,000
Prices:				
U.S. producer cathode (cents per pound)	(12)	104.114	109.044	111.949
Imports:				
Ores and concentrates 5/	(14)	15	72,400	NA
Refined	(14)	47,200	620,000	NA
Exports:				
Ores and concentrates 5/	(15)	22,100	195,000	NA
Refined	(15)	16,000	170,000	NA

p/ Preliminary. r/ Revised. NA Not available. XX Not applicable.

1/ Data are rounded to three significant digits, except prices; may not add to totals shown.

2/ Numbers in parentheses refer to the detailed tables where these data are located.

3/ From domestic and foreign ores.

4/ 1996 and 1997 monthly data estimated based on 1995 monthly average.

5/ Copper content.

TABLE 2
MINE PRODUCTION OF RECOVERABLE COPPER IN THE UNITED STATES 1/

(Metric tons)

State	1995		1996 p/					
	December	Year total	January	February	March	April	May	June
Arizona	105,000	1,170,000	104,000	93,000	108,000	103,000	107,000	106,000
Others 2/	45,700	682,000	50,500	47,900	55,800	53,900	53,700	56,100
Total	151,000	1,850,000	155,000	141,000	164,000	157,000	161,000	163,000

State				1996 p/				1997
	July	August	September	October	November	December r/	Jan. - Dec.	January
Arizona	104,000	106,000	99,900 r/	105,000	102,000	104,000	1,240,000	98,000
Others 2/	57,400	58,900	58,200	59,300	55,000	60,800	667,000 r/	59,800
Total	161,000	165,000	158,000	164,000	157,000	165,000	1,910,000	158,000

p/ Preliminary. r/ Revised.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes production from California, Idaho, Michigan, Missouri, Montana, Nevada, New Mexico, Utah, and Wisconsin.

TABLE 3
COPPER 1/ PRODUCED AT SMELTERS IN THE UNITED STATES, BY SOURCE 2/

(Metric tons, copper content)

Period	Domestic and foreign ores	Scrap	Total
1996: p/			
January	115,000 r/	27,400 r/	142,000
February	109,000 r/	28,800 r/	138,000
March	104,000 r/	30,200 r/	134,000
April	105,000	28,200	133,000
May	97,600 r/	27,400 r/	125,000
June	105,000 r/	29,300 r/	134,000
July	105,000 r/	30,500 r/	136,000
August	97,200	29,100	126,000
September r/	113,000	27,800	140,000
October	117,000 r/	28,700 r/	146,000
November	110,000 r/	27,200 r/	137,000
December	115,000 r/	31,900 r/	146,000
Year total	1,290,000 r/	347,000 r/	1,640,000
1997:			
January	115,000	28,100	143,000

p/ Preliminary. r/ Revised.

1/ Includes blister, anode and black copper from primary or secondary sources.

2/ Data are rounded to three significant digits; may not add to totals shown.

TABLE 4
PRODUCTION OF REFINED COPPER, BY SOURCE AND METHOD OF RECOVERY 1/

(Metric tons)

Period	Primary materials				Scrap			Total refined
	Electrolytically refined 2/		Electrowon	Total	Electro-lytically refined 2/	Fire refined	Total	
	Domestic 3/	Foreign						
1996: p/								
January	113,000	15,900	47,500	176,000	14,300	13,400	27,700	204,000
February	103,000	14,800	43,500	161,000	13,700	12,800	26,400	187,000
March	107,000	14,400	45,900	168,000	14,200	14,000	28,200	196,000
April	110,000	14,800	47,400	173,000	14,200	10,400	24,700	197,000
May	107,000	13,900	50,700	172,000	16,900	12,700	29,600	201,000
June	94,600	9,430	48,300	152,000	17,300	13,700	30,900	183,000
July	113,000	10,600	48,200	172,000	18,100	6,310	24,400	196,000
August	102,000	12,000	47,100	161,000	14,000	11,000	25,000	186,000
September	105,000	12,700	45,900	163,000	12,900	13,900	26,800	190,000
October	122,000	9,190	51,600	183,000	17,200	13,500	30,600	213,000
November	105,000	10,100	47,800	163,000	15,000	10,900	25,900	189,000
December	113,000	8,240	49,700	171,000	18,500	7,800	26,300	198,000
Year total	1,290,000	146,000	574,000	2,010,000	186,000	140,000	327,000	2,340,000
1997:								
January	116,000	8,240	47,900	172,000	22,000	11,500	33,500	206,000

p/ Preliminary.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Based on source of material at smelter level.

3/ Includes fire-refined copper.

TABLE 5
COPPER RECOVERABLE IN UNALLOYED AND ALLOYED FORM FROM PURCHASED COPPER-BASED SCRAP 1/

(Metric tons, copper content)

Period	Refineries 2/		Ingot makers 3/		Brass and wire-rod mills		Foundries, etc. 4/		Total 5/
	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	
1996: p/									
January	11,100	16,600	2,890	7,440	59,400	3,350	2,240	2,960	106,000
February	9,790	16,600	2,890	7,440	54,000	2,980	2,240	2,960	99,000
March	11,100	17,200	2,890	7,440	57,600	2,660	2,240	2,960	104,000
April	8,200	16,500	2,890	7,440	57,400	4,240	2,240	2,960	102,000
May	10,000	19,600	2,890	7,440	60,100	4,230	2,240	2,960	109,000
June	10,900	20,000	2,890	7,440	58,700	4,960	2,240	2,960	110,000
July	6,010	18,400	2,890	7,440	50,100	3,880	2,240	2,960	93,900
August	8,310	16,700	2,890	7,440	55,600	3,870	2,240	2,960	100,000
September	10,300	16,500	2,890	7,440	55,000 r/	3,850	2,240	2,960	101,000 r/
October	10,900	19,800	2,890	7,440	56,300 r/	3,640	2,240	2,960	106,000 r/
November	8,730	17,200	2,890	7,440	54,200 r/	4,580	2,240	2,960	100,000 r/
December	5,750	20,600	2,890	7,440	53,600 r/	4,410	2,240	2,960	99,900 r/
Year total	111,000	216,000	34,700	89,200	672,000 r/	46,700	26,900	35,600	1,230,000
1997:									
January	9,780	23,700	2,890	7,440	60,800	3,340	2,240	2,960	113,000

p/ Preliminary. r/ Revised.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Electrolytically refined and fire-refined scrap based on source of material at smelter level.

3/ Data no longer collected monthly; 1996 and 1997 data estimated based on 1995 annual data.

4/ Estimate based on 1995 annual data.

5/ Does not include an estimate, based on reported 1995 data, of 3,100 tons per month from new scrap and 2,330 tons per month from old scrap of copper recovered from scrap other than copper-base.

TABLE 6
PRODUCTION, SHIPMENTS, AND STOCKS OF BRASS AND WIRE-ROD MILL SEMIFABRICATES 1/

(Metric tons, gross weight)

Period	Production		Shipments		Stocks, end of period	
	Brass mills	Wire rod mills	Brass mills	Wire rod mills	Brass mills	Wire rod mills
1996: p/						
January	120,000	144,000	122,000	146,000	50,100	67,100
February	128,000	153,000	130,000	157,000	48,800	63,500
March	144,000	171,000	142,000	160,000	51,300	74,300
April	131,000	157,000	133,000	175,000	49,400	55,800
May	130,000	173,000	129,000	165,000	51,000	63,200
June	131,000	163,000	126,000	151,000	55,200	75,200
July	111,000	139,000	114,000	152,000	52,200	62,900
August	130,000	142,000	132,000	156,000	50,300	48,500
September	135,000	163,000	136,000	158,000	49,300 r/	53,200
October	139,000	180,000	139,000	184,000	49,400 r/	50,100
November	134,000	176,000	134,000	171,000	49,900 r/	55,000
December	116,000	155,000 r/	113,000	143,000 r/	52,600 r/	66,500 r/
Year total	1,550,000	1,920,000	1,550,000	1,920,000	XX	XX
1997:						
January	132,000	178,000	133,000	183,000	51,500	61,300

p/ Preliminary. r/ Revised. XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

TABLE 7
CONSUMPTION OF REFINED COPPER 1/

(Metric tons)

Period and item	Wire rod mills	Brass mills 2/	Other plants 3/	Total
1996: p/				
January	154,000	45,100	4,630	204,000
February	165,000	47,200	4,630	216,000
March	181,000	56,400	4,630	242,000
April	162,000	47,500	4,630	214,000
May	184,000	47,500	4,630	236,000
June	164,000	49,400	4,630	218,000
July	147,000	41,900	4,630	193,000
August	154,000	50,100	4,630	209,000
September	162,000	55,600 r/	4,630	222,000
October	185,000	54,100 r/	4,630	244,000
November	177,000	47,200 r/	4,630	229,000
December	150,000	46,900 r/	4,630	201,000 r/
Year total	1,980,000	589,000 r/	55,600	2,630,000
1997:				
January:				
Cathodes	179,000	34,600	1,120	215,000
Wire bars	--	W	W	W
Ingots and ingot bars	--	1,560	1,660	3,220
Cakes and slabs	--	7,710	W	7,710
Billets and other	--	11,100	1,860	12,900
Total	179,000	54,900	4,630	239,000

p/ Preliminary. r/ Revised. W Withheld to avoid disclosing company proprietary data; included in "Billets and other."

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ In 1995, brass mills consumed 2,210 tons of refined lead, 706 tons of pig tin, 3,870 tons of refined nickel, and 64,100 tons of slab zinc.

3/ Monthly consumption by ingot makers, chemical plants, foundries, and miscellaneous manufacturers; estimated based on 1995 annual data.

TABLE 8
U.S. APPARENT CONSUMPTION OF COPPER 1/

(Metric tons)

Period	Refined copper production	Copper in old scrap 2/	Net refined imports	Stock change during period	Apparent consumption
1995:					
Year total	1,930,000	442,000	211,000	39,100	2,540,000
1996: p/					
January	176,000	32,700	29,400	28,600	210,000
February	161,000	32,300	24,800	(21,400)	239,000
March	168,000	32,600	35,500	(7,120)	243,000
April	173,000	33,400	37,300	10,800	232,000
May	172,000	36,500	46,000	(26,400)	281,000
June	152,000	37,700	33,900	(7,400)	231,000
July	172,000	35,000	38,000	23,300	222,000
August	161,000	33,300	47,100	(6,660)	248,000
September	163,000	33,100	47,800	(13,100)r/	257,000
October	183,000	36,100	29,700	(4,510)r/	253,000 r/
November	163,000	34,500	49,100	(14,400)r/	261,000 r/
December	171,000	37,700	31,300	20,500 r/	220,000
Year total	2,010,000	415,000	450,000	(17,800)r/	2,900,000
1997:					
January	172,000	39,800	NA	5,820	NA

p/ Preliminary. r/ Revised. NA Not Available.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes reported monthly production of copper from old scrap of copper-base and of non-copper-base materials and estimates for annual reporters based on 1995 data.

TABLE 9
CONSUMPTION OF PURCHASED COPPER-BASE SCRAP 1/

(Metric tons, gross weight)

Period	Smelters and refineries		Ingot makers 2/		Brass and wire-rod mills 3/		Foundries, etc. e/		Total scrap used
	New scrap 2/	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	
1996: p/									
January	12,600	26,600	3,870	11,300	74,300	4,100	2,570	3,390	139,000
February	10,700	28,200	3,870	11,300	68,200	3,830	2,570	3,390	132,000
March	11,700	32,200	3,870	11,300	72,300	3,570	2,570	3,390	141,000
April	9,680	26,800	3,870	11,300	71,900	5,000	2,570	3,390	134,000
May	10,800	31,400	3,870	11,300	75,500	5,100	2,570	3,390	144,000
June	13,200	36,300	3,870	11,300	73,200	5,990	2,570	3,390	150,000
July	8,120	27,900	3,870	11,300	63,800	4,790	2,570	3,390	126,000
August	10,000	28,300	3,870	11,300	70,700	4,880	2,570	3,390	135,000
September	12,700	27,000	3,870	11,300	69,100 r/	5,010	2,570	3,390	135,000 r/
October	11,600	33,500	3,870	11,300	71,600 r/	4,510	2,570	3,390	142,000 r/
November	10,700	29,000	3,870	11,300	68,900 r/	5,530	2,570	3,390	135,000 r/
December	7,700	31,700	3,870	11,300	67,600 r/	5,400	2,570	3,390	134,000 r/
Year total	130,000	359,000	46,400	136,000	847,000 r/	57,700	30,800	40,600	1,650,000
1997:									
January	12,400	29,200	3,870	11,300	77,000	3,420	2,570	3,390	143,000

e/ Estimated. p/ Preliminary. r/ Revised.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Data for 1996 and 1997 are estimated from 1995 annual data.

3/ Consumption at brass and wire-rod mills assumed equal to receipts.

TABLE 10
CONSUMPTION OF PURCHASED COPPER-BASE SCRAP 1/ 2/

(Metric tons, gross weight)

Scrap type and processor	1996 p/				1997
	January	November	December	Year total	January
No. 1 wire and heavy:					
Smelters and refiners	14,000	11,900	8,400	147,000	12,000
Brass and wire-rod mills	31,900	28,600 r/	29,700 r/	357,000 r/	32,700
No. 2 mixed heavy and light:					
Smelters and refiners	15,500	16,800	20,600	215,000	18,400
Brass and wire-rod mills	3,210	2,510 r/	2,220 r/	34,600 r/	3,070
Total unalloyed scrap:					
Smelters and refiners	29,500	28,700	29,000	362,000	30,400
Brass mills	35,100	31,100 r/	31,900 r/	392,000 r/	35,700
Red brass: 3/					
All plants	5,620	5,800 r/	5,560 r/	66,300 r/	5,730
Leaded yellow brass:					
All plants	32,600	32,700 r/	32,100 r/	397,000	35,700
Yellow and low brass:					
Smelters and refiners	(4/)	(4/)	(4/)	(4/)	(4/)
Brass mills	4,750	5,200 r/	4,170 r/	53,200 r/	4,050
Cartridge cases and brass:					
Smelters and refiners	--	--	--	--	--
Brass mills	4,510	3,840 r/	3,980 r/	45,200 r/	3,620
Auto radiators:					
Smelters and refiners	6,080	6,080	6,080	73,000	6,080
Bronzes:					
Smelters and refiners	--	--	--	--	--
Brass mills	915	1,070	999	11,200	1,050
Nickel-copper alloys:					
Smelters and refiners	--	--	--	--	--
Brass mills	1,510	1,400	1,040 r/	20,400 r/	1,380
Low grade & residues:					
Smelters and refiners	6,890	7,940	7,240	88,800	7,520
Other alloy scrap: 5/					
Smelters and refiners	3,140	3,350	3,560	41,400	3,960
Brass mills	364	357	347	4,440	326
Total alloyed scrap:					
Smelters and refiners	24,900	26,200	25,700	309,000	26,400
Brass mills	43,200	43,300 r/	41,100 r/	513,000 r/	44,700
Total scrap:					
Smelters and refiners	54,300	54,800	54,600	671,000	56,800
Brass and wire-rod mills	78,400	74,400 r/	73,000 r/	905,000 r/	80,500

p/ Preliminary. r/ Revised.

1/ Does not include: consumption by foundries, chemical plants and miscellaneous manufacturers, estimated to total about 6,000 tons of scrap per month in 1995; consumption of home scrap at brass mills which averaged 57,200 tons per month in 1995. Monthly data include estimates of about 30,000 tons of scrap per month consumed by ingot makers and several smelters that report only on an annual basis.

2/ Data are rounded to three significant digits; may not add to totals shown.

3/ Includes composition turnings, silicon bronze, zinc bronze, railroad car boxes, cocks and faucets, gilding metal and commercial bronze.

4/ Withheld to avoid disclosing company proprietary data; included in "Other alloy scrap."

5/ Includes refinery brass, beryllium copper, phosphor copper and aluminum bronze.

TABLE 11
COPPER STOCKS AT END OF PERIOD 1/

(Metric tons)

Period	Crude copper 2/	Refined copper					LME 6/	Total refined
		Refineries 3/	Wire rod mills 3/	Brass mills 3/	Other 4/	Comex 5/		
1996: p/								
January	172,000	35,700	34,500	10,400	3,540	11,000	96,700	192,000
February	177,000	31,700	22,600	11,200	3,540	11,700	89,600	170,000
March	153,000	33,800	19,500	9,820	3,540	12,600	84,000	163,000
April	171,000	35,600	25,500	11,300	3,540	18,800	79,400	174,000
May	166,000	35,500	19,200	9,840	3,540	12,000	67,500	148,000
June	162,000	33,500	13,100	12,700	3,540	6,880	70,400	140,000
July	154,000	41,700	29,700	13,700	3,540	16,100	58,700	164,000
August	159,000	34,000	25,800	13,800	3,540	20,100	59,600	157,000
September	161,000	32,400	19,400	12,800 r/	3,540	19,700	56,000	144,000
October	163,000	33,900	31,000	13,200 r/	3,540	28,600	29,200	139,000
November	167,000	32,200	30,600	11,600 r/	3,540	26,000	20,900	125,000
December	173,000	32,200	32,100	12,700 r/	3,540	26,600	38,300	145,000 r/
1997:								
January	169,000	30,400	28,000	12,800	3,540	16,700	59,800	151,000

p/ Preliminary. r/ Revised.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Copper content of blister and other materials in transit and in process of refining.

3/ Stocks of refined copper as reported; no estimates are made for non-respondents.

4/ Monthly estimates based on reported and 1995 annual data, comprising stocks at secondary smelters, chemical plants, foundries, and miscellaneous manufacturers.

5/ Commodity Exchange Inc., New York.

6/ London Metal Exchange Ltd., U.S. warehouses.

TABLE 12
AVERAGE PRICE OF COPPER IN THE UNITED STATES AND
ON THE LONDON METAL EXCHANGE

(Cents per pound)

Period	U.S. producers delivered price		Comex first position 3/	L.M.E. cash price Grade A
	Cathode 1/	Wirebar 2/		
1996:				
January	121.431	130.090	118.091	118.622
February	120.020	128.668	116.668	115.077
March	121.540	130.200	118.200	116.140
April	122.628	131.286	119.286	117.707
May	126.667	135.327	123.327	120.527
June	107.828	116.538	104.488	98.447
July	94.007	102.693	90.667	90.006
August	95.479	104.139	92.139	91.072
September	93.848	102.623	90.508	88.026
October	96.873	105.533	93.533	88.935
November	104.097	112.776	100.776	101.149
December	104.114	114.781	102.781	102.837
Average	109.044	117.888	105.872	104.045
1997:				
January	111.949	120.054	108.291	110.417

1/ Listed as "U.S. producer cathode."

2/ Listed as "Electrolytic wirebar (Warrenton Refining Co.)."

3/ Listed as "Comex high grade first position."

Sources: Platt's Metals Week and American Metal Market.

TABLE 13
NEW YORK AVERAGE BUYING PRICES FOR COPPER SCRAP

(Cents per pound)

Month	Brass mills No. 1 scrap	Refiners No. 2 scrap	Dealers (New York)	
			No. 2 scrap	Red brass turnings and borings
1996:				
January	112.46	95.09	87.98	57.86
February	111.85	93.83	89.75	57.00
March	113.06	96.54	92.53	57.66
April	114.20	96.99	84.43	58.00
May	116.25	97.10	84.59	57.84
June	96.95	83.00	77.85	55.35
July	88.58	69.76	64.43	46.79
August	90.85	73.93	64.00	46.09
September	88.69	72.56	64.00	46.00
October	89.21	73.04	64.00	46.00
November	97.04	79.22	64.63	46.63
December	99.17	81.94	65.00	47.00
Average	101.53	84.42	75.27	51.85
1997:				
January	99.29	81.49	66.13	47.57

Source: American Metal Market.

TABLE 14
U.S. IMPORTS FOR CONSUMPTION OF COPPER (UNMANUFACTURED), BY CLASS 1/

(Metric tons, copper content)

Country or territory	Ore and concentrate			Matte, ash and precipitates			Blister and anodes			Refined		
	1996			1996			1996			1996		
	1995	Dec.	Jan. - Dec.	1995	Dec.	Jan. - Dec.	1995	Dec.	Jan. - Dec.	1995	Dec.	Jan. - Dec.
Brazil	--	--	--	--	--	--	--	--	--	15,500	2,010	15,600
Canada	(2/)	15	9,000	590	8	236	40,000	--	3,760	283,000	28,100	355,000
Chile	80,400	--	59,800	--	--	--	38,000	5,910	51,700	29,100	11,100	119,000
Germany	--	--	--	--	--	--	--	--	--	12,300	(2/)	9,960
Japan	--	--	--	4	--	--	(2/)	--	(2/)	7,740	--	3,940
Malaysia	--	--	--	55	--	79	--	--	--	--	--	--
Mexico	11,700	--	3,680	2,190	212	2,050	2,350	547	19,600	58,600	733	30,300
Peru	34,900	--	--	--	--	--	10,400	1,590	9,550	9,860	5,210	64,700
Russia	--	--	--	--	--	--	--	--	--	11,600	--	15,000
Spain	--	--	--	--	--	--	3,260	--	2,710	--	--	--
Taiwan	--	--	--	1	1	24	--	--	--	--	--	(2/)
Other	2	--	3	13	--	2	--	--	649	620	50	7,050
Total	127,000	15	72,400	2,860	221	2,390	94,100	8,050	88,000	429,000	47,200	620,000

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Less than 1/2 unit.

Source: Bureau of the Census.

TABLE 15
U.S. EXPORTS OF COPPER (UNMANUFACTURED), BY CLASS 1/

(Metric tons, copper content)

Country or territory	Ore and concentrate			Matte, ash and precipitates			Blister and anodes			Refined		
	1996			1996			1996			1996		
	1995	Dec.	Jan. - Dec.	1995	Dec.	Jan. - Dec.	1995	Dec.	Jan. - Dec.	1995	Dec.	Jan. - Dec.
Australia	--	--	2	3	4	22	--	44	106	--	--	14
Belgium	1,980	--	--	1,330	--	3	81	--	239	2,260	--	46
Brazil	--	2,810	2,810	2	--	5	--	--	--	11	--	25
Canada	123,000	3,940	79,900	30,400	1,110	31,500	24,800	813	18,000	22,900	2,320	28,700
China	37,100	2,750	54,500	17	--	2	211	--	44	5,130	--	233
Germany	--	--	76	152	--	1	84	--	463	629	7	189
Hong Kong	--	--	16	48	--	29	650	219	1,170	4,710	20	525
Italy	--	--	8	--	2	2	245	25	451	1,580	--	2,150
Japan	53,500	11,000	47,600	1,880	105	2,130	363	66	456	52,800	1,600	31,900
Korea, Republic of	5,520	1,570	1,570	10	4	19	1,440	444	1,100	11,200	--	3,480
Malaysia	--	--	--	--	--	--	--	--	(2/)	4,110	219	6,470
Mexico	160	(2/)	2,340	763	351	2,790	219	39	410	2,710	5,700	11,800
Philippines	16,000	--	--	--	--	--	20	--	17	3	--	--
Singapore	5	--	--	18	6	8	39	4	44	12,700	1,300	2,690
Spain	--	--	2,800	--	--	6	2	15	15	--	--	7
Taiwan	--	--	--	201	--	--	137	169	330	75,000	2,280	54,100
Thailand	34	--	--	--	--	--	124	46	112	18,700	2,470	26,400
Venezuela	--	--	--	--	--	--	860	--	6	27	--	25
Other	1,520 r/	4	3,550	224 r/	11	545	224	9	279	3,020 r/	36	1,010
Total	239,000	22,100	195,000	35,100	1,590	37,100	29,500	1,900	23,200	217,000	16,000	170,000

r/ Revised.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Less than 1/2 unit.

Source: Bureau of the Census.

TABLE 16
U.S. COPPER SCRAP TRADE 1/

(Metric tons, gross weight)

Country or territory	Imports						Exports					
	Unalloyed			Alloyed			Unalloyed			Alloyed		
	1996			1996			1996			1996		
	1995	Dec.	Jan. - Dec.	1995	Dec.	Jan. - Dec.	1995	Dec.	Jan. - Dec.	1995	Dec.	Jan. - Dec.
Belgium	11	--	--	294	33	33	2,730	111	9,380	3,030	46	1,440
Canada	36,600	3,210	40,500	64,600	4,080	57,700	110,000	9,450	104,000	42,600	3,940	41,900
Chile	9,270	996	11,800	66	18	178	--	--	--	7	--	5
China	--	--	--	21	17	79	28,000	736	12,600	50,100	1,290	24,900
Colombia	325	60	668	1,280	324	3,020	--	--	--	9	--	3
Costa Rica	848	85	1,320	524	12	386	--	--	--	--	--	--
Dominican Republic	702	110	603	1,860	121	1,940	--	--	--	--	--	--
Germany	--	--	4	64	--	122	1,580	--	7,190	4,310	249	5,290
Honduras	67	21	275	891	190	1,040	--	--	--	--	--	--
Hong Kong	--	--	--	23	(2/)	120	31,400	1,570	28,600	30,900	1,280	43,200
India	--	--	--	--	--	--	7,020	18	3,960	42,500	2,390	29,800
Japan	--	--	2	124	17	83	20,000	1,730	19,300	16,700	2,210	18,700
Korea, Republic of	--	--	--	14	18	18	10,300	396	5,140	24,100	1,050	11,200
Mexico	32,800	1,920	27,900	50,500	2,910	42,400	6,470	20	2,470	1,710	207	4,030
Panama	1,170	99	1,020	776	78	1,100	--	--	--	--	--	--
Spain	--	--	138	61	121	292	--	39	39	632	18	757
Sweden	--	--	--	--	19	292	--	--	--	1,110	161	1,870
Switzerland	--	--	--	--	--	--	17	--	2,760	140	--	18
Taiwan	--	32	102	2,940	165	1,480	1,680	122	1,340	3,730	524	4,970
Thailand	--	--	--	8	--	36	--	--	37	2,490	297	2,460
United Kingdom	111	--	(2/)	201	20	1,310	338	--	194	2,810	20	381
Venezuela	3,260	165	2,600	2,860	236	2,540	--	--	--	22	--	40
Other	2,930 r/	212	3,430	6,450 r/	639	7,660	3,570 r/	102	634	6,480 r/	99	4,350
Total	88,100	6,910	90,300	134,000	9,010	122,000	223,000	14,300	197,000	233,000	13,800	195,000

r/ Revised.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Less than 1/2 unit.

Source: Bureau of the Census.

TABLE 17
U.S. COPPER SULFATE TRADE 1/

(Gross weight, metric tons)

Country or territory	Imports						Exports					
	1996						1996					
	1995	October	November	December	Fourth quarter	Year total	1995	October	November	December	Fourth quarter	Year total
Belgium	--	--	--	--	--	--	--	--	--	51	51	72
Canada	1,960	566	318	355	1,240	4,240	2,870	151	79	136	366	2,050
Chile	250	41	39	83	163	391	33	--	--	--	--	--
China	68	--	20	--	20	878	--	--	--	--	--	--
Israel	1,680	103	122	333	333	1,200	--	--	--	--	--	--
Mexico	5,570	919	797	2,190	2,190	9,550	14	--	--	2	3	5
Netherlands	542	--	--	--	--	--	--	--	--	--	--	--
Peru	579	136	80	276	276	1,010	--	--	--	--	--	--
Poland	404	--	--	--	--	--	--	--	--	--	--	--
Russia	333	--	--	--	--	29	--	15	--	--	15	15
South Africa	736	--	--	--	--	--	--	--	--	--	--	--
Taiwan	104	--	--	--	--	13	--	--	17	--	17	69
Other	185 r/	18	22 r/	60	60	110	162 r/	5	5	6	16	116
Total	12,400	1,780	1,420	1,080	4,280	17,400	3,080	170	101	196	467	2,320

r/ Revised.

1/ Data are rounded to three significant digits; may not add to totals shown.

Source: Bureau of the Census.

Year
total
72
2,050
--
--
--
5
--
--
--
15
--
69
116
2,320